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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/689,531

10/21/2003

Yuichi Shimoyama

513-105

9330

23117 7590 05/03/2005

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EXAMINER

COOLEY, CHARLES E

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,531

Applicant(s)

SHIMOYAMA, YUICHI

Examiner

Charles E. Cooley

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

NON-FINAL OFFICE ACTION

1. This application has been assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to (703) 872-9306.

2. As the PTO continues to move towards a fully electronic environment, the office will phase-in its E-Patent Reference program. This program: (1) provides downloading capability of the U.S. patents and U.S. patent application publications cited in Office actions via the E-Patent Reference feature of the Office's PAIR system; and (2) ceases mailing paper copies of U.S. patents and U.S. patent application publications with office actions except for citations made during the international stage of an international application under PCT.

Effective June 2004, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions from this Technology Center. Paper copies of foreign patents and non-patent literature will continue to be included with office actions.

The U.S. patents and patent application publications cited in office actions are available for download via the Office's PAIR system. As an alternate source, all U.S.

patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources.

Inquiries about the use of the Office's PAIR system should be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

Priority

3. Acknowledgment is made of applicant's claim for priority based on an application filed in JAPAN on 20 MAY 2003. It is noted that applicant has not filed a certified copy of the application as required by 35 U.S.C. § 119.

Drawings

4. The drawings are objected to under 37 CFR § 1.83(a) since the drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims. No new matter should be entered.

- a. the subject matter of claim 6.
- b. the subject matter of claim 9.

5. The drawings are objected to because of the following informalities:

- a. locking member 64 is not labeled in the appropriate Figures (see page 14, line 11).
- b. recess 21 is not labeled in the appropriate Figures (see page 17, line 7).

- c. The figure legends are improper.

Correction is required.

6. Applicant should verify that (1) all reference characters in the drawings are described in the detailed description portion of the specification and (2) all reference characters mentioned in the specification are included in the appropriate drawing Figure(s) as required by 37 CFR 1.84(p)(5).

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
8. The abstract is acceptable.
9. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed (MPEP 606.01).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyama (US 6,045,494) in view of Brimhall (US 5,665,047).**

Toyama (US 6,045,494) discloses a centrifugal separator comprising a main body with a movable lid (Fig. 1) including an inherent drive means; a sampling-container

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locking part 10 connected to the rotary shaft of the drive means and capable of locking a sampling container 20, the sampling container locked to the sampling-container locking part being rotated by the rotation of the drive means; wherein the sampling-container locking part comprises a connecting part 11 capable of connecting to the rotary shaft; and tongue pieces 12 projecting oppositely with the connecting part 11 interposed therebetween; and wherein the tongue pieces 12 are arranged to project from the upper flat part of the connecting part 11 at an angle of at least about 10 to 60 degrees (col. 3, lines 22-25) and each have a hole 13 capable of locking the sampling container 20; wherein the tongue pieces 12 projecting oppositely with the connecting part 11 interposed therebetween have the same shape (Figs. 1-3b); wherein the tongue pieces 12 projecting oppositely with the connecting part 11 interposed therebetween are at least a pair of tongue pieces (Figs. 1-3b); an odd number of tongue pieces 42 projecting from the connecting part 41 (Figs. 2a-2b); wherein the odd number of tongue pieces 42 are arranged to project radially at regular intervals in the connecting part (Figs. 2a-2b); and wherein the tongue pieces 42 are arranged to project from the upper flat part of the connecting part 41 at an angle of at least about 10 to 60 degrees (col. 3, lines 64-66) and each have a hole 43 or 44 capable of locking the sampling container; wherein the projecting tongue pieces 12, 42, or 52 have the same shape (Figs. 1-3b); wherein the tongue pieces 12, 42, or 52 are arranged to project from the upper flat part of the connecting part 11, 41, or 51 at an angle of at least about 45 degrees (col. 3, lines 22-25; col. 3, lines 64-66; and col. 4, lines 6-8). Toyama (US 6,045,494) thus discloses all of the recited subject matter with the exception of the drive means being in

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the form of a motor and a dry cell serving as a driving power supply; a locking member capable of locking the sampling container in place of the hole capable of locking the sampling container; or a timer for controlling motor driving time to stop the driving of the motor after a lapse of a specified time interval from the start of motor driving, thereby completing centrifugal separation.

The patent to Brimhall discloses a centrifuge apparatus specifically designed as a relatively compact centrifuge that uniquely can be used to provide centrifugation of a wide array of biological samples using commercially available, disposable centrifugation tubes. The centrifuge includes automatic settings for the centrifugation of samples to determine microhematocrit, Quantitative Buffy Coat (QBC) analysis, fecal sedimentation, urine sedimentation, plasma preparation, and other, user-selectable manual operational settings. The rotor includes multiple sets of tube holders access to which is regulated by an index plate having a single of set of access ports therethrough. The single set of access ports is specifically aligned to key a single set of receptacles in the rotor once a specific receptacle in the rotor has been selected. This unique feature precludes the operator from inadvertently placing centrifugation tubes in receptacles of differing receptacle sets. A Liquid Crystal Display (LCD) displays the various menu selections available to the user and can even be programmed to display the information in any preselected language. Once a particular selection has been made the system automatically sets the rotation speed and duration for the particular type of

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sample being processed. The entire centrifuge of this invention is compact, lighter in weight than any comparable centrifuge apparatus, and is ruggedized to resist shock and vibration damage to its components.

Referring now to FIG. 1, the centrifuge apparatus is shown generally at 10 and includes a housing 12 having a lid 14 hingedly joined to housing 12 at a hinge 13. Centrifuge 10 is configured as a hand-portable unit weighing less than about three kilograms and is designed to be mountable upon an auxiliary battery pack (not shown) for field operations. Lid 14 includes a latch 15a that engages a corresponding catch 15b on housing 12. Lid 14 also has an upwardly oriented dome 19 as well as a viewing window 11 to allow the operator (not shown) to peer inside centrifuge 10. A cover plate 16 is removably mountable in housing 12 to the upper end of a rotor shaft 18 by an interlock 17 on cover plate 16. Rotor shaft 18 extends upwardly from a motor 54 (FIG. 3) inside housing 12 and rotatably supports a rotor 30 (FIG. 2) and an index plate 32. A control panel 20 on the face of housing 12 is configured as a liquid crystal display (LCD) driven by a preprogrammed menu, selection of which is accomplished by touch plates 22 and 23. An on/off switch 24 activates the motor which, in turn, is controlled by the particular menu selection displayed on control panel 20.

Referring now also to FIG. 2, housing 12 is shown having a chamber 26 with rotor shaft 18 extending upwardly from base of chamber 26. Chamber 26 is configured as a cylindrical hollow in housing 12 and serves as the enclosure for receiving therein all of the components that cooperate with rotor 30 when

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rotor 30 is rotatably mounted to rotor shaft 18. A locking nut 36 secures rotor 30 to rotor shaft 18. Rotor 30 is configured with a plurality of receptacle sets 40a-f, 41a-f, 42a-f, and 43a-f mounted thereto with the entrance to each of receptacle sets 40a-f, 41a-f, 42a-f, and 43a-f extending upwardly through the surface of rotor 30. A skirt 34 is configured with a frustoconical shape and mounted to and encloses the outer periphery of rotor 30.

Index plate/locking ring 32 is rotatably mounted to rotor shaft 18 and is independently rotatable relative to rotor 30. Index plate/locking ring 32 includes a set of index ports 44a-f, each of which is dimensionally coordinated with each of the respective individual receptacles that constitute receptacle sets 40a-f, 41a-f, 42a-f, and 43a-f. Specifically, when index plate 32 is rotated to place index ports 44a-f into alignment with any one of receptacle sets 40a-f, 41a-f, 42a-f, or 43a-f the orientation of index ports 44a-f is such that they preclude all access to any of the remaining receptacle sets. For example, if index ports 44a-f are aligned with, say, receptacle set 42a-f, then only the individual receptacles 42a, 42b, 42c, 42d, 42e, and 42f are accessible through the respective index ports 44a, 44b, 44c, 44d, 44e, and 44f to the exclusion of all other receptacles in receptacle sets 40a-f, 41a-f, and 43a-f. In this manner, index plate 32 effectively limits the placement of centrifugation containers (not shown) to any given size of centrifugation container designed for the respective specific receptacle set 41a-f through 43a-f. Clearly, of course, the

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operator (not shown) must exercise a certain degree of selectivity by assuring that the correct size of centrifugation container is placed in the correct size receptacle of receptacle sets 40a-f through 43a-f. Once the proper selection has been made, index plate 32 thereafter restricts placement of the centrifugation container to that particular set of preselected receptacles. In effect, therefore, index plate 32 provides a keying mechanism for keying rotor 30 to receipt of only one set of centrifugation containers at any given time, thus effectively precluding the inadvertent commingling of different sizes of centrifugation containers in the various receptacles of receptacle sets 40a-f through 43a-f.

A bushing 38 is mounted to rotor shaft 18 above index plate 32 and serves as a spacer to spatially separate cover plate 16 from index plate 32. Correspondingly, a lock ring 36 is secured to the base of rotor shaft 18 to releasably engage rotor 30 to rotor shaft 18. Lock ring 36 also allows index plate 32 to rotate freely relative to rotor 30 thus allowing the operator to selectively key index ports 44a-f to any one of the preselected receptacle sets 40a-f through 43-a-f. Clearly, of course, once a particular centrifuge tube has been inserted through one of index ports 44a-f then that selection mandates that the remaining centrifuge tubes will be directed into the correct, underlying set of receptacle sets 40a-f through 43a-f.

Referring now to FIG. 3, the internal components of multiple function centrifuge 10 of FIGS. 1 and 2 are shown schematically generally at 50 and

include a battery 52, a motor 54, and a memory 56. Rotor shaft 18 extends upwardly from motor 54 and has rotor 30 affixed thereto to enable motor 54 to rotate 30. Index plate 32 is rotatably mounted to rotor shaft 18 so as to provide the novel keying features of index plate 32 to rotor 30 as has been described in detail hereinbefore. Battery 52 supplies the necessary electrical energy for the operation of memory 56, display 20 (FIGS. 1 and 2), and motor 54. As the name implies, memory 56 is preprogrammed with the necessary instructions for the operation of motor 54 as displayed on control panel 20. In particular, memory 56 is preprogrammed with all of the necessary operating instructions necessary to enable the operator (not shown) to operate multiple function centrifuge 10.

Operation of multiple function centrifuge 10 is commenced by the operator pressing either of touch plates 22 or 23 which causes memory 56 to display the starting sequence on control panel 20. This starting sequence is actually a menu through which the operator is able to scroll using touch plates 22 or 23 for forward or reverse respectively. Once the desired item on the menu has been selected the operator simply follows the instructions thus displayed on control panel 20 which includes inserting the centrifuge containers (not shown) through index plate 32 into the appropriate receptacle sets, receptacle sets 40a-f through 43a-f, as determined by index plate 32 and as instructed by display panel 20. Thereafter, cover plate 16 is mounted to rotor shaft 18 and lid 14 is then closed. The operator then closes switch 24

to enable memory/timer 56 to take over the operation of motor 54 both as to its speed of rotation and the duration of the centrifugation cycle. Upon completion of each centrifugation cycle memory 56 stops motor 54 and displays the necessary instructions on control panel 20 to enable the operator to continue the diagnostic procedure for that particular set of centrifugation samples.

Advantageously, the operator is able to simply scroll through the menu displayed on control panel 20 and select another centrifugation protocol involving another type of biological sample by the simple step of placing the centrifugation tubes in the appropriate receptacle sets 40a-f through 43a-f while using index plate 32 to assure that only one of receptacle sets 40a-f through 43a-f is in use at any one time.

In practicing the novel method of this invention the operator (not shown) selectively presses touch plate 22 or 23 to scroll through the menu selections for the particular type of sample being processed in centrifuge apparatus 10. The menu selection made as shown on control panel 20 will instruct the operator as to the placement of the centrifuge tubes (not shown) in the preselected receptacle set 40a-f through 43a-f. With the centrifuge tubes thus placed in rotor 30, the operator places cover plate 16 on rotor shaft 18 while engaging interlock 17 thereto. Lid 14 is then closed with latch 15a in engagement with catch 15b. With lid 14 properly closed the operator then presses on/off switch 24 to activate centrifuge 10. The operation of centrifuge 10 then proceeds according to the menu selection shown on the LCD of

control panel 20.

Importantly, index plate 32 reduces the likelihood that the centrifuge tubes will be misplaced among the various receptacles of receptacle sets 40a-f through 43a-f. For example, even though receptacle sets 40a-f through 43a-f are each of a preselected size, in the absence of index plate 32 it could be possible for the operator to inadvertently place a centrifuge tube in, say, receptacle 41f and also in receptacle 43c with the result that a significant imbalance would be created in rotor 30. However, the placement of index ports 44a-f is such that once a particular receptacle set 40a-f through 43a-f is indexed thereby, access to all other receptacle sets 40a-f through 43a-f is blocked by index plate 32.

Accordingly, it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the centrifuge of Toyama '494 with drive means being in the form of a motor and a dry cell serving as a driving power supply; a locking member, and a timer for the purposes of facilitating the portability of the centrifuge, such as in field operations (col. 3, lines 21-24), to control the placement of the sample tubes in the rotor (col. 3, line 51 through col. 4, line 12), and to control the duration of time the centrifuge operates or duty cycle (col. 4, lines 54-57).

With respect to claims 10-13, "[e]xpressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed

does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Although the centrifuges of both Toyama and Brimhall are adapted for use with body fluids such as blood, the body fluids are merely the contents of the apparatus during an intended operation and are thus of no patentable significance in the pending apparatus claims. The source of the body fluids is also of no patentable consequence.

12. Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Toyama (US 6,045,494) in view of Brimhall (US 5,665,047) as applied to claim 1 above and furthering view of Turvaville et al. (US 5,924,972).

While both Toyama (US 6,045,494) and Brimhall (US 5,665,047) both disclose the main body having a lid for covering the sampling container locking part, they do not disclose the recited safety system. The patent to Turvaville et al. discloses a portable eccentric centrifuge at 10 in the figures. The portable eccentric centrifuge, or centrifuge 10, is designed to be easily portable and operate in areas where 12 volt d.c. power is accessible. Moreover, in the centrifuge 10 is designed to provide an adjustment mechanism for leveling the centrifuge 10 when being supported upon on a non-level surface, such as on a vehicle seat, floorboard, console, or dashboard, and to operate using a d.c power source, such as a car cigarette lighter receptacle.

FIG. 1 illustrates the centrifuge 10. However, details of the centrifuge are best illustrated in FIG. 2. A compact, lightweight base plate 12 serves as

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the foundation for the centrifuge 10. A plurality of stands 15 support the base plate 12. The base plate 12 defines a plurality of through-openings 14 for receiving the stands 15. Static leveling of the centrifuge 10 is accomplished using a height adjustment assembly 16 for adjusting the height at which the base plate 12 rests on each stand 15. For example, in the illustrated embodiment, each stand 15 defines a threaded portion and the height adjustment assembly 16 includes a threaded receptor 17, such as a wing nut. The threaded receptor 17 is secured to the base plate 12 at one end of each of the threaded through-openings 14 for engaging the threaded portion of each stand 15. Further, as shown in FIG. 1, at least one level indicator 21, such as a bubble level, indicates when the base plate 12 is statically level. In the illustrated embodiment of FIG. 1, a circular bubble level is disposed at the top of a lid 42 for aligning the base plate 12 in the horizontal plane. Finally, the base plate 12 defines a plurality of tube holder openings 18 for the storage of the separation tubes 19 for use with the centrifuge 10.

A lightweight, compact chamber 22, defining a lid opening 23, is secured to the base plate 12 and defines a volume for housing the centrifuge 10. Similarly, a d.c. motor 24 housed within the chamber 22 is secured to the base plate 12. A tube retention plate 28 is secured to the drive shaft 26 of the d.c. motor 24 and defines a plurality of tube openings 30 for receiving a plurality of separation tubes (not shown). The tube openings 30 are positioned such that the separation tubes can be placed to balance the tube retention

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plate 28. In the illustrated embodiment, the tube retention plate 28 defines two diametrically-opposed tube openings 30 for receiving two separation tubes. Further, in the illustrated embodiment, each tube opening 30 includes a tube sleeve 34 for receiving a separation tube.

A timer 36 is electrically connected to a d.c. motor 24 for controlling the length of the centrifuge cycle. In the illustrated embodiment, a d.c. power adaptor 40, for example an automobile cigarette lighter adaptor, permits operation from an automobile battery.

The lid 42 is secured to the chamber 22 covering the lid opening 23. A handle 44 is provided for gripping the lid 42 during opening and closing. A lock assembly 46 secures the lid 42 during operation and transit. A safety system is included whereby the lock assembly 46 is electrically connected to the timer 36 for preventing operation of the centrifuge 10 until the lock assembly 46 is engaged.

Due to the lightweight, compact construction, a home health care practitioner can have access to a portable centrifuge for use while traveling. For those patients requiring blood sample analysis, the practitioner can draw and separate whole blood eliminating the need for an immediate trip to a laboratory. Should the practitioner need to operate the centrifuge on a non-level surface, such as on a car seat or floorboard, the height adjustment assembly, in combination with the level indicator, provides the ability to statically level the centrifuge. For example, the practitioner could save time

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by operating the centrifuge, using the vehicle's 12 volt d.c power through the cigarette lighter adapter, while traveling between patient locations.

Accordingly, it would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the centrifuge of Toyama '494 in view of Brimhall with a safety system as disclosed by Turvaville et al. for the purpose of preventing operation of the centrifuge unless the lid is closed and locked (col. 4, lines 10-21).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art discloses centrifuges for samples, some with locking means for holding the sample receptacles in the rotor.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Charles" followed by a stylized flourish.

Charles E. Cooley
Primary Examiner
Art Unit 1723

28 April 2005